

Claims

1. An apparatus comprising:
 - a first signal path comprising:
 - 5 a first despreaders;
 - a second despreaders coupled to the first despreaders;
 - a first de-interleaver coupled to the second despreaders;
 - a first branch metric determiner coupled to the first de-interleaver,
wherein the first branch metric determiner outputs first
10 branch metrics;
 - a second signal path comprising:
 - a third despreaders;
 - a fourth despreaders coupled to the third despreaders;
 - a second de-interleaver coupled to the fourth despreaders;
 - 15 a second branch metric determiner coupled to the second de-interleaver, wherein the second branch metric determiner
outputs second branch metrics; and
 - a combiner having the first and the second branch metrics as an input and
outputting combined branch metrics.
- 20 2. The apparatus of claim 1 wherein the first despreaders despreads data transmitted from a first base station.
3. The apparatus of claim 2 wherein the third despreaders despreads data
25 transmitted from a second base station.
4. The apparatus of claim 1 wherein the first branch metrics are branch metrics derived utilizing a first convolutional encoding scheme.
- 30 5. The apparatus of claim 4 wherein the second branch metrics are branch metrics derived utilizing a second convolutional encoding scheme.

6. An apparatus comprising:

a first branch metric generator having a first plurality of symbols as an input and outputting first branch metrics for the first plurality of symbols;

5 a second branch metric generator having a second plurality of symbols as an input and outputting second branch metrics for the second plurality of symbols; and

a combiner having the first and the second branch metrics as an input and outputting combined branch metrics.

10 7. The apparatus of claim 6 wherein the first plurality of symbols differ in number from the second plurality of symbols.

8. The apparatus of claim 7 wherein the first plurality of symbols where generated utilizing a first convolutional encoding scheme and the second plurality of symbols where generated utilizing a second convolutional encoding scheme.

9. The apparatus of claim 6 wherein the first plurality of symbols where transmitted by a first base station and the second plurality of symbols where transmitted by a second base station.

20 10. The apparatus of claim 6 further comprising:

a logic unit having the first and the second plurality of symbols as an input and outputting the symbols with zeros inserted at various time periods.

25 11. A method comprising the steps of:

receiving a first plurality of symbols;

generating first branch metrics for the first plurality of symbols;

receiving a second plurality of symbols;

generating second branch metrics for the second plurality of symbols; and

30 combining the first and the second branch metrics.

12. The method of claim 11 wherein the step of receiving the first plurality of symbols comprises the step of receiving the first plurality of symbols, wherein the first plurality of symbols where generated utilizing a first convolutional encoding scheme.

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13. The method of claim 12 wherein the step of receiving the second plurality of symbols comprises the step of receiving the second plurality of symbols, wherein the second plurality of symbols where generated utilizing a second convolutional encoding scheme.
14. The method of claim 11 wherein the step of receiving the first plurality of symbols comprises the step of receiving the first plurality of symbols, wherein the first plurality of symbols where generated utilizing a first convolutional encoding scheme and transmitted by a first base station.
15. The method of claim 14 wherein the step of receiving the second plurality of symbols comprises the step of receiving the second plurality of symbols, wherein the second plurality of symbols where generated utilizing a second convolutional encoding scheme and transmitted by a second base station.